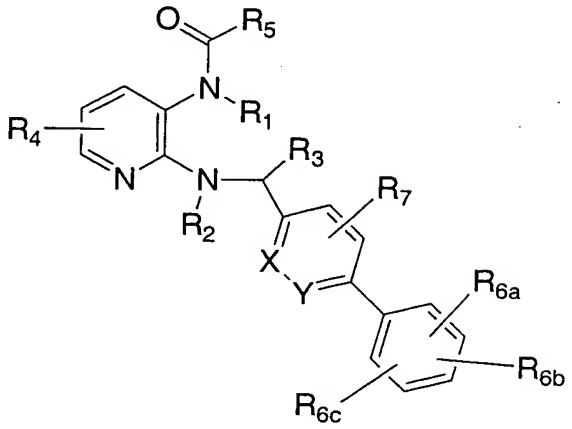
WHAT IS CLAIMED IS:

1. A compound of formula I:



I

wherein

X and Y are each CH, or one is CH and the other is N;

$R_1$ and $R_2$ are independently selected from

(1) hydrogen and

(2) $C_{1-4}$ alkyl;

$R_3$ is selected from

(1) hydrogen, and

(2) $C_{1-4}$ alkyl optionally substituted with 1 to 4 groups selected from halogen, $CO_2R^a$, $OR^a$, $COR^a$ and cyano;

$R_4$ is selected from

(1) hydrogen,

(2) nitro,

(3) halogen,

(4) $(CH_2)_nOR^a$,

(5) $(CH_2)_nCO_2R^a$,

(6) $(CH_2)_nCN$,

(7) $(CH_2)_nNR^bR^c$,

(8) $(CH_2)_nNHC(O)CH_2CN$,

(9) $CONR^bR^c$, and

(10) $C_{1-4}$ alkyl;

$R_5$ is selected from

(1) $C_{3-6}$ cycloalkyl substituted with 1 or 2 fluoro,

(2) $CHF_2$,

(3) $CH_2CF_3$,

(4) $CF_2CF_3$, and

(5) $CH_2CH_2CF_3$;

$R_{6a}$ is selected from

(1) $C_{1-8}$ alkyl, optionally substituted with 1 to 5 groups independently selected from halogen, nitro, cyano, $COR^a$, $SO_2R^d$, $CO_2R^a$, $NR^bR^c$, $NR^bC(O)R^a$, $NHSO_2R^d$, $OR^a$, $OC(O)R^a$, $CONR^bR^c$,

(2) $C_{3-8}$ cycloalkyl,

(3) $C_{2-8}$ alkenyl optionally substituted with $CO_2R^a$;

(4) halogen,

(5) $OCF_3$,

(6) cyano,

(7) nitro,

(8) $NR^bR^c$,

(9) $NR^bC(O)R^a$,

(10) $NR^bCO_2R^{a'}$, wherein $R^{a'}$ is a non-hydrogen group selected from $R^a$,

(11) $CO_2R^a$,

(12) $COR^a$,

(13) $C(O)NR^bR^c$,

(14) $C(O)NHOR^a$,

(15) $OR^a$,

(16) $OC(O)R^a$,

(17) $S(O)_nR^{a'}$, wherein $R^{a'}$ is a non-hydrogen group selected from $R^a$,

(18) $SO_2NHR^c$,

(19) $NHSO_2R^d$,

(20) $C(=NOR^a)NR^bR^c$,

(21) $C(=NOR^a)R^a$, and

(22) substituted or unsubstituted heterocycle where the heterocycle is selected from oxadiazole, tetrazole, triazole, pyrazole, oxazole, isoxazole, thiazole, 4,5-dihydro-oxazole, 4,5-dihydro-1,2,4-oxadiazol-5-one, and wherein said substituent is 1 to 3 groups independently selected from $C_{1-4}$alkyl optionally substituted with 1 to 5 halogen atoms, $OR^a$, or $OC(O)R^a$;

$R_{6b}$ and $R_{6c}$ are independently selected from

(1) hydrogen, and

(2) a group from $R_{6a}$; with the proviso that not more than one of $R_{6a}$, $R_{6b}$, and $R_{6c}$ is a heterocycle;

$R_7$ is selected from

(1) hydrogen,

(2) cyano,

(3) nitro,

(4) halogen,

(5) $OR^a$,

(6) $CO_2R^a$,

(7) $CONR^bR^c$, and

(8) $C_{1-4}$ alkyl;

$R^a$ is selected from

(1) hydrogen,

(2) $C_{1-4}$ alkyl,

(3) $C_{3-6}$ cycloalkyl,

(4) aryl, and

(5) aryl-$C_{1-4}$ alkyl;

$R^b$ and $R^c$ are independently selected from

(1) hydrogen,

(2) $C_{1-4}$ alkyl optionally substituted with $OR^a$,

(3) $C_{3-6}$ cycloalkyl,

(4) aryl, and

(5) aryl-$C_{1-4}$ alkyl; or

$R^b$ and $R^c$ together with the nitrogen atom to which they are attached form a 5- or 6-membered ring optionally containing a heteroatom selected from $NR^a$, O and S;

$R^d$ is selected from

(1) $C_{1-4}$ alkyl, optionally substituted with 1 to 3 halogen atoms,

(2) aryl,

(3) aryl-$C_{1-4}$ alkyl, and

(4) $NR^bR^c$;

n is 0, 1 or 2

a pharmaceutically acceptable salt thereof.

2. A compound of Claim 1 wherein $R_3$ is hydrogen.

3. A compound of Claim 1 wherein $R_3$ is $C_{1-4}$ alkyl.

4. A compound of Claim 1 wherein $R_4$ is H or a 4-substituent.

5. A compound of Claim 1 wherein $R_4$ is H or a 4-substituent selected from $C_{1-4}$ alkyl and halogen.

6. A compound of Claim 1 wherein $R_4$ is 4-chloro or 4-methyl.

7. A compound of Claim 1 wherein $R_5$ is $CH_2CF_3$.

8. A compound of Claim 1 wherein X and Y are both CH.

9. A compound of Claim 1 wherein one of X and Y is CH and the other is N.

10. A compound of Claim 1 wherein $R_{6a}$ is a 2- (or ortho-) substituent selected from $CO_2R^a$, $CONR^bR^c$, $CONHOR^a$, $C_{1-8}$ alkyl substituted with 1 to 5 halogen atoms, cyano, $SO_2NHR^c$, halogen, trifluoromethoxy, 1- and 2-methyltetrazol-5-yl, 1,2,4-oxadiazolyl, 3- and 5-methyl-1,2,4-oxadiazolyl, 3- and 5-trifluoromethyl-1,2,4-oxadiazolyl, 3-pyrazolyl, 1,2,4-triazolyl, 5-methyl-1,2,4-triazol-3-yl, and 3-methyl-1,2,4-triazol-5-yl.

11. A compound of Claim 10 wherein $R_{6a}$ is selected from methyl carboxylate, cyano, N-methylcarboxamido and N-methylsulfonamido.

12. A compound of Claim 10 wherein $R_{6a}$ is 1- or 2-methyltetrazolyl.

13. A compound of Claim 10 wherein $R_{6a}$ is 1,2,4-oxadiazolyl, 5(4H)-oxo-1,2,4-oxadiazolyl, 4-methyl-5(4H)-oxo-1,2,4-oxadiazolyl, or 3- or 5-methyl-1,2,4-oxadiazolyl.

14. A compound of Claim 10 wherein $R_{6a}$ is difluoromethyl, trifluoromethyl, trifluoromethoxy, N-methoxycarboxamide, Cl, F or Br.

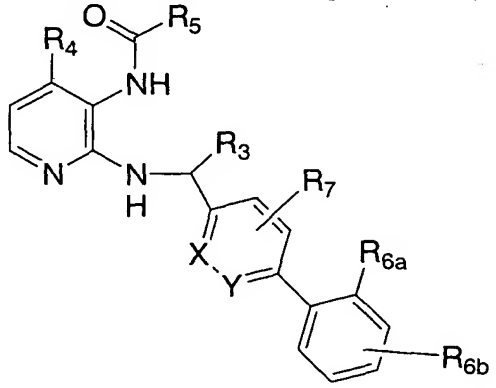
15. A compound of Claim 10 wherein $R_{6a}$ is 1,2,4-triazolyl, isoxazolyl or pyrazolyl.

16. A compound of Claim 1 wherein $R_{6b}$ is selected from hydrogen, $C_{1-8}$ alkyl optionally substituted with OH or 1 to 5 halogen atoms, $C_{2-6}$ alkenyl, $NR^bR^c$, $OR^a$, $COR^a$, $CO_2R^a$, $NHCOR^a$, $NHSO_2R^d$ and halogen, and $R_{6c}$ is hydrogen.

17. A compound of Claim 16 wherein $R_{6b}$ is hydrogen, halogen, $CO_2R^a$, $COR^a$, or $C_{1-4}$alkyl optionally substituted with hydroxy.

18. A compound of Claim 16 wherein $R_{6b}$ is hydrogen, fluoro, chloro, or methyl.

19. A compound of Claim 1 represented by formula Ia:




Ia

wherein $R_3$, $R_4$, $R_5$, $R_{6a}$, $R_{6b}$, $R_7$, X and Y are as defined in Claim 1.

20. A compound of Claim 19 wherein at least one of $R_3$, $R_4$ and $R_{6b}$ is non-hydrogen.

21. A compound of Claim 19 wherein at least two of $R_3$, $R_4$ and $R_{6b}$ are non-hydrogen.

22. A compound of Claim 20 wherein $R_{6a}$ is selected from $CO_2R^a$, $CONR^bR^c$, $CONHOR^a$, $C_{1-8}$ alkyl substituted with 1 to 5 halogen atoms, cyano, $SO_2NHR^c$, halogen, trifluoromethoxy, 1- and 2-methyltetrazol-5-yl, 1,2,4-oxadiazolyl, 3- and 5-methyl-1,2,4-oxadiazolyl, 3- and 5-trifluoromethyl-1,2,4-oxadiazolyl, 3-pyrazolyl, 1,2,4-triazolyl, 5-methyl-1,2,4-triazol-3-yl, and 3-methyl-1,2,4-triazol-5-yl.

23. A compound of Claim 21 wherein $R_{6a}$ is selected from $CO_2R^a$, $CONR^bR^c$, $CONHOR^a$, $C_{1-8}$ alkyl substituted with 1 to 5 halogen atoms, cyano, $SO_2NHR^c$, halogen, trifluoromethoxy, 1- and 2-methyltetrazol-5-yl, 1,2,4-oxadiazolyl, 3- and 5-methyl-1,2,4-oxadiazolyl, 3- and 5-trifluoromethyl-1,2,4-oxadiazolyl, 3-pyrazolyl, 1,2,4-triazolyl, 5-methyl-1,2,4-triazol-3-yl, and 3-methyl-1,2,4-triazol-5-yl.

24. A compound of Claim 19 wherein $R_{6b}$ is hydrogen, or a 3-, 5- or 6-substituent selected from $C_{1-4}$alkyl and halogen.

25. A compound of Claim 19 wherein

$R_3$ is H or $C_{1-4}$ alkyl;

$R_4$ is H, $C_{1-4}$ alkyl or halogen;

$R_5$ is $CH_2CF_3$;

$R_{6a}$ is selected from $CO_2R^a$, $CONR^bR^c$, $CONHOR^a$, $C_{1-8}$ alkyl substituted with 1 to 5 halogen atoms, cyano, $SO_2NHR^c$, halogen, trifluoromethoxy, 1- and 2-methyltetrazol-5-yl, 1,2,4-oxadiazolyl, 3- and 5-methyl-1,2,4-oxadiazolyl, 3- and 5-trifluoromethyl-1,2,4-oxadiazolyl, 3-pyrazolyl, 1,2,4-triazolyl, 5-methyl-1,2,4-triazol-3-yl, and 3-methyl-1,2,4-triazol-5-yl;

$R_{6b}$ is selected from hydrogen, $C_{1-8}$ alkyl optionally substituted with OH or 1 to 5 halogen atoms, $C_{2-6}$ alkenyl, $NR^bR^c$, $OR^a$, $COR^a$, $CO_2R^a$, $NHCOR^a$, $NHSO_2R^d$ and halogen; and

$R_{6c}$ is hydrogen; with the proviso that at least one of $R_3$, $R_4$ and $R_{6b}$ is non-hydrogen.

26. A compound of Claim 26 wherein $R_{6a}$ is selected from $CO_2R^a$, $CONR^bR^c$, $SO_2NHR^c$, and cyano.

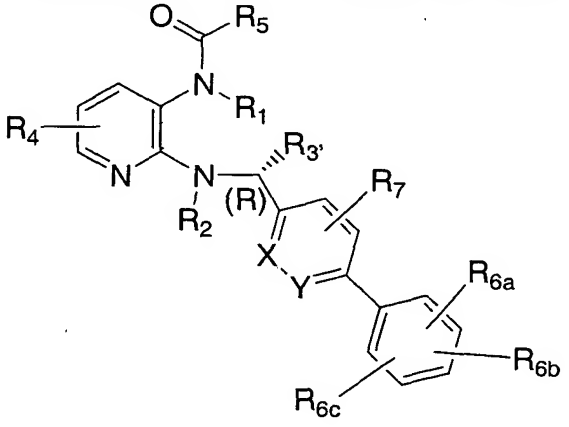
27. A compound of Claim 26 wherein $R_{6a}$ is selected from 1- or 2-methyltetrazolyl.

28. A compound of Claim 26 wherein $R_{6a}$ is 1,2,4-oxadiazolyl, 5(4H)-oxo-1,2,4-oxadiazolyl, 4-methyl-5(4H)-oxo-1,2,4-oxadiazolyl, or 3- or 5-methyl-1,2,4-oxadiazolyl.

29. A compound of Claim 26 wherein $R_{6a}$ is difluoromethyl, trifluoromethyl, trifluoromethoxy, N-methoxycarboxamide, Cl, F or Br.

30. A compound of Claim 26 wherein $R_{6a}$ is 1,2,4-triazolyl, isoxazolyl or pyrazolyl.

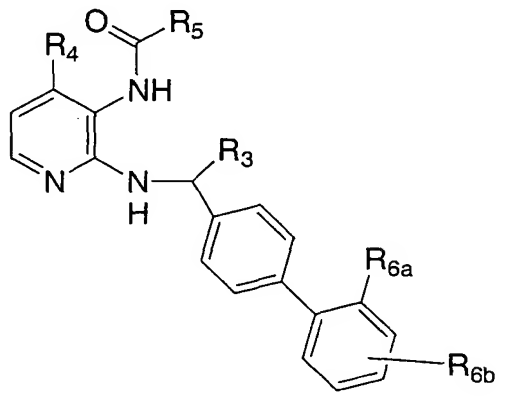
31. A compound of Claim 1 represented by the formula Ib:



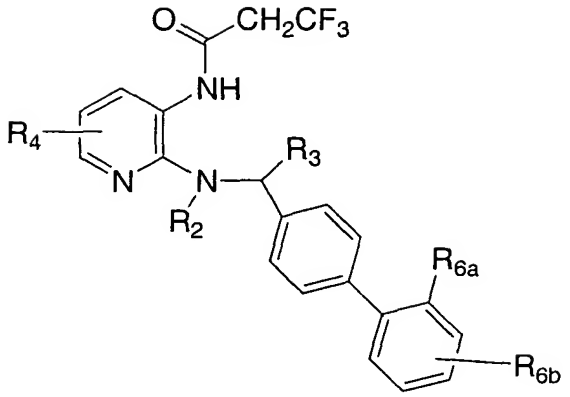

Ib

wherein all the variables are as defined in Claim 1, except $R_{3'}$ is $C_{1-4}$ alkyl optionally substituted with 1 to 4 groups selected from halogen, $CO_2R^a$, $OR^a$, $COR^a$ and cyano.

32. A compound selected from:




| $R_{6a}$ | $R_{6b}$ | $R_3$ | $R_4$ | $R_5$ |
|---|---|---|---|---|
| $CO_2Me$ | 5'-Me | Me(*R*) | Me | 2,2-di-F-cPr |
| $CO_2Me$ | 5'-Cl | Me(*R*) | Me | $CHF_2$ |
| $CO_2Me$ | 5'-Me | Me(*R*) | Me | $CHF_2$ |
| CN | 5'-Me | Me(*R*) | Me | $CHF_2$ |
| $CO_2Me$ | H | H | H | $CHF_2$ |
| $CO_2Me$ | H | H | Me | $CF_2CF_3$ |
| CONHMe | H | H | Me | $CF_2CF_3$ |
| $CO_2Me$ | H | H | H | $(CH_2)_2CF_3$ |



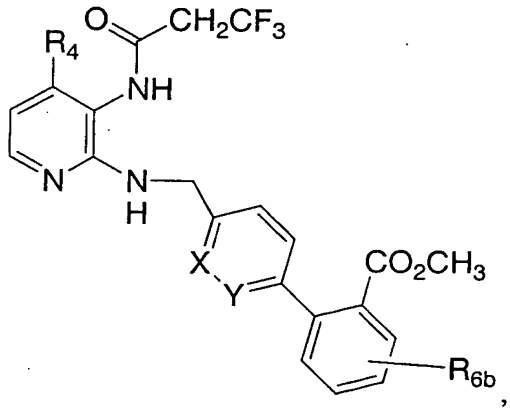

| R6a | R6b | R3 | R4 |
|---|---|---|---|
| **R2 is H unless otherwise specified** | | | |
| 3-methyl-1,2,4-oxadiazolyl | 5'-F | Me(*R*) | 4-Cl |
| CONHMe | 3'-F | Me(*R*) | 4-Cl |
| 3-methyl-1,2,4-oxadiazolyl | 3'-F | H | 4-Me |
| $CO_2Me$ | 3'-F | H | 4-Me |
| $CO_2Me$ | 3'-Cl | Me(*R*) | 4-Me |
| $CO_2Me$ | 3'-Cl | H | 4-Me |
| CN | 3'-F | Me(*R*) | 4-Me |
| $CO_2Me$ | 3'-F | Me(*R*) | 4-Me |
| 3-methyl-1,2,4-oxadiazolyl | 3'-F | Me(*R*) | 4-Cl |
| $CO_2Me$ | 3'-F | Me(*R*) | 4-Cl |
| 5-methyl-1,2,4-oxadiazolyl | 3'-F | Me(*R*) | 4-Cl |
| 2-methyl-2H-tetrazol-5-yl | 3'-F | Me(*R*) | 4-Me |
| $CO_2Me$ | 3'-Cl | Me(*R*) | 4-Cl |
| $CO_2Me$ | 5'-Me | Me(*R*) | 4-Cl |
| 2-methyl-2H-tetrazol-5-yl | 3'-F | Me(*R*) | 4-Cl |
| $CO_2Me$ | 3'-Cl | Me(*R*) | H |
| CONHMe | 3'-F | Me(*R*) | 4-Me |
| $CO_2Me$ | 6'-Me | Me(*R*) | 4-Cl |
| $CO_2Me$ | 3'-Cl | H | 4-Cl |
| $CO_2Me$ | 5'-F | Me(*R*) | 4-Cl |
| 5-methyl-1,2,4-oxadiazolyl | 5'-Me | H | 4-Me |
| 3-methyl-1,2,4-oxadiazolyl | 5'-Me | H | 4-Me |

| $R_{6a}$ | $R_{6b}$ | $R_3$ | $R_4$ |
|---|---|---|---|
| $CO_2Me$ | 5'-Me | Me(*R*) | 4-Me |
| $CO_2Me$ | 5'-Cl | Me(*R*) | 4-Cl |
| $CF_3$ | 3'-F | H | 4-Me |
| $CO_2Me$ | 3'-F | Me(*R*) | H |
| $CO_2Me$ | 6'-F | Me(*R*) | 4-Cl |
| $CF_3$ | 3'-F | Me(*R*) | 4-Cl |
| $CO_2Me$ | H | Me(*R*) | 4-Me |
| $CO_2Me$ | 6'-Cl | Me(*R*) | 4-Cl |
| CONHOMe | H | Me(*R*) | 4-Me |
| $SO_2NHMe$ | H | Me(*R*) | 4-Me |
| CONHOMe | H | H | 4-Me |
| $CHF_2$ | 3'-Cl | H | 4-Me |
| Cl | 3'-F | Me(*R*) | 4-Me |
| $CO_2Me$ | H | Me(*R*) | 4-Cl |
| 5-methyl-1,2,4-oxadiazolyl | H | Me(*R*) | 4-Cl |
| 3-methyl-1,2,4-oxadiazolyl | H | H | 4-Me |
| CN | 3'-F | H | 4-Cl |
| 5-methyl-1,2,4-oxadiazolyl | H | Me(*R*) | 4-Me |
| 3-methyl-1,2,4-oxadiazolyl | H | H | H |
| Cl | 3'-Cl | Me(*R*) | 4-Me |
| CN | 5'-Me | Me(*R*) | 4-Me |
| Cl | 3'-F | Me(*R*) | 4-Cl |
| $CF_3$ | 3'-F | H | 4-Me |
| $CF_3$ | H | Me(*R*) | 4-Me |
| 5-methyl-1,2,4-oxadiazolyl | 5'-Me | Me(*R*) | 4-Me |
| Cl | 3'-F | H | 4-Me |
| 1-methyl-1H-tetrazol-5-yl | 3'-F | Me(*R*) | 4-Cl |
| 3-methyl-1,2,4-oxadiazolyl | H | Me | 4-Me |
| $CF_3$ | 3'-F | Me(*R*) | H |
| CONHMe | H | Me(*R*) | 4-Me |
| 3-methyl-1,2,4-oxadiazolyl | 5'-Cl | Me(*R*) | 4-Cl |
| $CO_2Me$ | H | H | 4-Me |

| $R_{6a}$ | $R_{6b}$ | $R_3$ | $R_4$ |
|---|---|---|---|
| $SO_2NHMe$ | H | H | 4-Me |
| $CO_2Me$ | H | H | 4-Cl |
| $OCF_3$ | H | Me(*R*) | 4-Me |
| 1,2,4-oxadiazol-5-yl | H | H | H |
| CN | H | Me(*R*) | 4-Me |
| $CHF_2$ | H | H | 4-Me |
| CONHMe | H | H | 4-Me |
| $CO_2Me$ | H | H | H |
| Br | H | Me(*R*) | 4-Me |
| F | 3'-F | Me(*R*) | 4-Me |
| $CO_2Me$ | 3'-Me | H | 4-Me |
| $CO_2Me$ | 6'-$CH_2OH$ | H | 4-Me |
| Cl | 3'-F | Me(*R*) | H |
| CONHOMe | 6'-Me | H | 4-Me |
| isoxazol-5-yl | H | H | H |
| Cl | 6'-Me | Me(*R*) | 4-Me |
| $CO_2Me$ | H | Et | 4-Me |
| 3-methyl-1,2,4-oxadiazolyl | 6'-Me | Me(*R*) | 4-Me |
| 1H-1,2,4-triazol-5-yl | H | H | 4-Me |
| $CO_2Me$ | H | H | 4-$(CH_2)_2$ $NHCOCH_2CN$ |
| $CO_2Me$ | 6'-$CO_2Me$ | H | 4-Me |
| 4-methyl-5(4H)-oxo-1,2,4-oxadiazol-3-yl | H | H | H |
| $CO_2Me$ | H | H | 4-$CH_2CO_2Me$ |
| Cl | 5'-Cl | Me(*R*) | 4-Me |
| $CO_2Me$ | H | H | 5-F |
| 3-methyl-1,2,4-oxadiazolyl | 6'-Me | H | 4-Me |
| $CO_2tBu$ | H | H | 4-Me |
| $CO_2Me$ | H | H | 4-Et |
| F | H | Me(*R*) | 4-Me |
| 1H-pyrazol-3-yl | H | H | H |
| $CO_2Me$ | H | H | 4-$CH_2CN$ |

| **R6a** | **R6b** | **R3** | **R4** |
|---|---|---|---|
| $CO_2Me$ | 6'-CHO | H | 4-Me |
| $CO_2Me$ | H | H | 5-Me |
| 5-($CF_3$)-1,2,4-oxadiazolyl | H | H | H |
| $CO_2Me$ | H | H | 5-Cl |
| $CO_2Me$ | H | H | 4-$(CH_2)_2NH_2$ |
| 5(4H)-oxo-1,2,4-oxadiazol-3-yl | H | H | H |
| F | 4'-F | Me(*R*) | 4-Me |
| $CO_2Me$ | H | H | 5-Br |
| 3-methyl-1,2,4-oxadiazolyl* | H | H | H |
| $CO_2Me$ | H | H | 6-Me |
| $CO_2Me$ | H | H | 6-Cl |
| H | 3'-F | Me(*R*) | 4-Me |

* $R_2$ is $CH_3$




, and

| R6b | R4 | X | Y |
|---|---|---|---|
| 3'-F | Me | C(F) | CH |
| 3'-F | Me | CH | C(F) |
| H | Me | N | CH |
| H | H | C(Me) | H |
| H | H | H | C(Me) |

5

33. A pharmaceutical composition comprising a compound according to Claim 1 or a pharmaceutically acceptable salt thereof; and a pharmaceutically acceptable carrier.

34. A method of treatment or prevention of pain and inflammation comprising a step of administering, to a subject in need of such treatment or prevention, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.

35. A method of treatment of osteoarthritis, repetitive motion pain, dental pain, cancer pain, myofascial pain, muscular injury pain, fibromyalgia pain, perioperative pain comprising a step of administering, to a subject in need of such treatment, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.

36. A method of treatment or prevention of inflammatory pain caused by chronic obstructive pulmonary disease, asthma, inflammatory bowel disease, rhinitis, pancreatitis, cystitis (interstitial cystitis), uveitis, inflammatory skin disorders, rheumatoid arthritis, edema resulting from trauma associated with burns, sprains or fracture, postsurgical intervention, osteoarthritis, rheumatic disease, teno-synovitis, or gout comprising a step of administering, to a subject in need of such treatment or prevention, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.

37. A method of treatment or prevention of pain associated with angina, menstruation or cancer comprising a step of administering, to a subject in need of such treatment or prevention, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.

38. A method of treatment of diabetic vasculopathy, post capillary resistance, diabetic symptoms associated with insulitis, psoriasis, eczema, spasms of the gastrointestinal tract or uterus, Crohn's disease, ulcerative colitis, or pancreatitis comprising a step of administering, to a subject in need of such treatment, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.

39. A method of treatment or prevention of pain caused by pneumoconiosis, including aluminosis, anthracosis, asbestosis, chalicosis, ptilosis, siderosis, silicosis, tabacosis, byssinosis, adult respiratory distress syndrome, bronchitis, allergic rhinitis, vasomotor rhinitis, liver disease, multiple sclerosis, atherosclerosis, Alzheimer's disease, septic shock, cerebral edema, headache, migraine, closed head trauma, irritable bowel syndrome, or nephritis comprising a step of administering, to a subject in need of such treatment or prevention of pain, an effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt thereof.